



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,884	10/21/2003	Derick Hugunin	UTL 00248	3884
7590 Kyocera Wireless Corp. P.O. Box 928289 San Diego, CA 92129-8289	02/06/2007		EXAMINER SONG, HOSUK	
			ART UNIT 2135	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/689,884	HUGUNIN, DERICK	
	<b>Examiner</b>	<b>Art Unit</b>	
	HOSUK SONG	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 21 October 2003.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-27 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-27 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 21 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi(US 6,686,833).

Claim 1: Takahashi disclose a housing and a speaker attached to the housing, the speaker constructed to vibrate at a mechanical vibration resonant frequency in (col.3,lines 9-13;col.2,lines 55-59). Takahashi disclose a sweep circuitry configured to produce a sweeping signal in (col.3,lines 4-8). Takahashi disclose drive circuitry responsive to the sweeping signal, the drive circuitry coupled to the sweep circuitry and to the speaker and configured to drive the speaker at a sweeping frequency to cause the speaker to vibrate and control circuitry selectively activating the sweep circuitry in (fig.1B and col.2,lines 32-47;col.3,lines 1-8).

Claim 2: Takahashi disclose the mechanical vibration resonant frequency is in the frequency range of about 130 Hz to about 180 Hz in (fig.11).

Claim 3: Takahashi disclose drive signal is in the frequency range about 100 Hz to about 250 Hz in (fig.5).

Claim 4: Takahashi disclose sweep circuitry drives the speaker by sweeping back and forth across the frequency range of the drive signal at a rate of about 50 Hz in (fig.2).

Claim 5: Takahashi disclose sweep circuitry sweeps back in forth across the range of the drive signal in a substantially sinusoidal pattern in (fig.5 and col.3,lines 13-17,59-64).

Claim 6: Takahashi disclose sweep circuitry sweeps back in forth across the range of the drive signal in discrete pattern in (col.3,lines 1-18).

Claim 7: Takahashi disclose a speaker constructed to resonate at a mechanical vibration resonant frequency; a driver coupled to the speaker(fig.10 and col.3,lines 9-13;col.2,lines 55-59) and constructed to generate a drive signal in a predetermined frequency range, wherein the mechanical vibration resonant frequency of the speaker is within the predetermined frequency range and the drive signal sweeps back and forth across the predetermined frequency range at a sweep frequency in (col.3,lines 4-8). Takahashi disclose control circuitry selectively activating the driver thereby causing the speaker to vibrate in the speaker's excitation frequency range in (fig.1B and col.2,lines 32-47;col.3,lines 1-8).

Claim 8: Takahashi disclose speaker vibrates at the speaker's mechanical vibration resonant frequency in (col.2,lines 32-47).

Claim 9: Takahashi disclose the mechanical vibration resonant frequency is in the frequency range of about 130 Hz to about 180 Hz in (fig.11).

Claim 10: Takahashi disclose drive signal is in the frequency range about 100 Hz to about 250 Hz in (fig.5).

Claim 11: Takahashi disclose sweep circuitry drives the speaker by sweeping back and forth across the frequency range of the drive signal at a rate of about 50 Hz in (fig.2).

Claim 12: Takahashi disclose sweep circuitry sweeps back in forth across the range of the drive signal in a substantially sinusoidal pattern in (fig.5 and col.3,lines 13-17,59-64).

Claim 13: Takahashi disclose sweep circuitry sweeps back in forth across the range of the drive signal in discrete pattern in (col.3,lines 1-18).

Claim 14: Takahashi disclose determining a range of mechanical vibration resonant frequencies for a plurality of speakers and determining a sweep range and sweep frequency for the range of mechanical vibration resonant frequencies in (col.3,lines 4-8). Takahashi disclose receiving a detecting a

Art Unit: 2135

call signal; determining if a vibration mode of the mobile wireless communication device is active and activating a driver to drive the speaker with a drive signal in (col.1,lines 22-36; col.3,lines 56-67).

Takahashi disclose sweeping the drive signal across the sweep range and at the sweep frequency thereby causing the speaker to vibrate in the speaker's excitation frequency range; determining if the phone has been answered or the call has timed out and deactivating the driver in (col.3,lines 1-18; col.4,lines 4-22).

Claim 15: Takahashi disclose speaker vibrates at the speaker's mechanical vibration resonant frequency in (col.2,lines 32-47).

Claim 16: Takahashi disclose the mechanical vibration resonant frequency is in the frequency range of about 130 Hz to about 180 Hz in (fig.11).

Claim 17: Takahashi disclose sweep range about 100 Hz to about 250 Hz in (fig.5).

Claim 18: Takahashi disclose sweep frequency is about 50 Hz in (fig.2).

Claim 19: Takahashi disclose sweeping the drive signal across the sweep range in a substantially sinusoidal pattern in (fig.5 and col.3,lines 13-17,59-64).

Claim 20: Takahashi disclose sweeping the drive signal across the sweep range in a discrete pattern in (col.3,lines 1-18).

Claim 21: Takahashi disclose mobile wireless communications device includes a speaker selected from a group of speakers having a predetermined range of mechanical vibration resonant frequencies, the mobile wireless communications device further including a driver having a predetermined sweep range and a predetermined sweep frequency in (col.3,lines 4-8 and fig.11). Takahashi disclose receiving and detecting a call signal and generating a drive signal in response to the call signal to drive the speaker, wherein the drive signal sweeps across the predetermined range of vibration frequencies at the sweep frequency thereby causing the speaker to vibrate and alerting the user with the vibrations of the speaker in (fig.1B and col.2,lines 32-47; col.3,lines 1-8).

Claim 22: Takahashi disclose the mechanical vibration resonant frequency is in the frequency range of about 130 Hz to about 180 Hz in (fig.11).

Claim 23: Takahashi disclose sweep range about 100 Hz to about 250 Hz in (fig.5).

Claim 24: Takahashi disclose sweep frequency is about 50 Hz in (fig.2).

Claim 25: Takahashi disclose sweeping the drive signal across the sweep range in a substantially sinusoidal pattern in (fig.5 and col.3,lines 13-17,59-64).

Claim 26: Takahashi disclose sweeping the drive signal across the sweep range in a discrete pattern in (col.3,lines 1-18).

Claim 27: Takahashi disclose a speaker having a mechanical vibration resonant frequency in an excitation frequency range col.2,lines 32-47); driving means for driving the speaker with a drive signal,wherein the mechanical vibration resonant frequency is within a selected frequency range and the drive signal sweeps across the frequency range at a selected sweep rate to drive the speaker in the speaker's excitation frequency range thereby causing the speaker to vibrate in (fig.1B and col.2,lines 32-47;col.3,lines 1-8).

#### ***Claim Objections***

Claim 13 is objected to because of the following informalities: Claim 13 is dependent on claim 6 and both claims are identical. Appropriate correction is required.

#### ***USPTO Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOSUK SONG whose telephone number is 5712723857. The examiner can normally be reached on mon-fri.

Art Unit: 2135

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KIM VU can be reached on 5712723859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*H.S.*  
HOSUK SONG  
PRIMARY EXAMINER